# PATENT COOPERATION TREATY

# **PCT**

# INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER see Notification o (Form PCT/ISA/2:	f Transmittal of International Search Report 20) as well as, where applicable, item 5 below.		
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)		
PCT/US 02/08716	21/03/2002 12/09/2001			
Applicant		·		
KIMBERLY-CLARK WORLDWIDE,	INC.			
This International Search Report has bee according to Article 18. A copy is being tra	n prepared by this International Searching Authansmitted to the International Bureau.	nority and is transmitted to the applicant		
This International Search Report consists    X	of a total of3 sheets. a copy of each prior art document cited in this	report.		
Basis of the report				
With regard to the language, the language in which it was filed, un	international search was carried out on the ba less otherwise indicated under this item.	sis of the international application in the		
Authority (Rule 23.1(b)).	vas carried out on the basis of a translation of t			
was carried out on the basis of th	e sequence listing :	nternational application, the international search		
· · · · · · · · · · · · · · · · · · ·	onal application in written form.	m		
<u> </u>	ernational application in computer readable for			
	o this Authority in written form.			
	o this Authority in computer readble form.  bsequently furnished written sequence listing of	does not go beyond the disclosure in the		
international application	as filed has been furnished.			
the statement that the information	formation recorded in computer readable form	is identical to the written sequence listing has been		
<u>-</u>	und unsearchable (See Box I).			
3. Unity of invention is la	cking (see Box II).			
4. With regard to the <b>title</b> ,				
1	submitted by the applicant.			
	shed by this Authority to read as follows:			
5. With regard to the <b>abstract</b> ,				
the text has been estab	submitted by the applicant. ished, according to Rule 38.2(b), by this Autho ne date of mailing of this international search re	ority as it appears in Box III. The applicant may, eport, submit comments to this Authority.		
	blished with the abstract is Figure No.			
as suggested by the ap		None of the figures.		
, —	ailed to suggest a figure.			
1	er characterizes the invention.			

International Application No PCT/IIS 02/08716

PCT/US 02/08716 CLASSIFICATION OF SUBJECT MATTER PC 7 D04H1/00 D04H G11B33/14 D04H3/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 D04H G11B Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° 1,17,46 US 4 850 731 A (YOUNGS ROSS 0) χ 25 July 1989 (1989-07-25) claims 1-24; figures 1-5 US 6 186 320 B1 (DREW TERRENCE MARTIN) 1,17,46 X 13 February 2001 (2001-02-13) cited in the application claims 1-13; figures 1-12 1 - 47US 5 697 200 A (INSLEY THOMAS I ET AL) Α 16 December 1997 (1997-12-16) the whole document 1 - 47US 5 667 562 A (MIDKIFF DAVID GRANT) Α 16 September 1997 (1997-09-16) the whole document Patent family members are listed in annex Further documents are listed in the continuation of box C ΧÌ "T" later document published after the international filing date or priority date and not in conflict with the application but Special categories of cited documents: \*A\* document defining the general state of the art which is not cited to understand the principle or theory underlying the invention considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docucitation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. \*P\* document published prior to the international filing date but \*&\* document member of the same patent family later than the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 22/07/2002 9 July 2002 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2

1

NL - 2280 HV Rijswijk

Fax: (+31-70) 340-3016

Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,

Karlsson, L

International Application No
PCT/US 02/08716

	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	Relevant to claim No.
tegory °	Citation of document, with indication, where appropriate, of the relevant passages	Herevalli to Claim No.
\	US 4 741 941 A (ENGLEBERT STEPHEN M ET AL) 3 May 1988 (1988-05-03) the whole document	1-47
4	US 5 547 541 A (HANSEN MICHAEL R ET AL) 20 August 1996 (1996-08-20) the whole document	1-47
A	WO 00 66821 A (KIMBERLY CLARK CO) 9 November 2000 (2000-11-09) the whole document	1-47

1

Information on patent family members

International Application No PCT/US 02/08716

					12/08/16
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4850731	Α	25-07-1989	AT AU	100410 T 3698989 A	15-02-1994 29-11-1989
				1327154 A1	22-02-1994
			CA	68912587 D1	03-03-1994
			DE	68912587 T2	05-05-1994
			DE		13-03-1991
			EP	0416009 A1	18-01-1995
			JP	7002511 B	20-02-1992
			JP	4500945 T	
			<b>W</b> O	8910882 A1	16-11-1989 
US 6186320	B1	13-02-2001	US	2001000892 A1	10-05-2001
US 5697200	Α	16-12-1997	US	5451437 A	19-09-1995
			BR	9406839 A	08-09-1999
			CA	2163650 A1	05-01-1995
			DE	69416516 D1	25-03-1999
			DE	69416516 T2	07-10-1999
			EΡ	0705207 A1	10-04-1996
			ES	2127403 T3	16-04-1999
			JP	8512012 T	17-12-1996
			WO	9500417 A1	05-01-1995
			US	5620759 A	15-04-1997
US 5667562	<del></del> -	16-09-1997	AU	2724597 A	12-11-1997
			WO	9739817 A1	30-10-1997
US 4741941	A	03-05-1988	AU	584470 B2	25-05-1989
			ΑU	6464586 A	07-05-1987
			CA	1314388 A1	16-03-1993
			GB	2182685 A ,B	20-05-1987
			KR	9310348 B1	16-10-1993
			MX	162781 A	26-06-1991
US 5547541	Α	20-08-1996	US	5543215 A	06-08-1996
			US	5538783 A	23-07-1996
			US	5300192 A	05-04-1994
			US	5352480 A	04-10-1994
			US	5308896 A	03-05-1994
			ŪS	5589256 A	31-12-1996
			ÜS	5672418 A	30-09-1997
			UJ	30/2410 A	
					04-03-1997
			US	5607759 A 5693411 A	04-03-1997 02-12-1997
			US US	5607759 A 5693411 A	
			US US US	5607759 A 5693411 A 5547745 A	02-12-1997
			US US US US	5607759 A 5693411 A 5547745 A 5641561 A	02-12-1997 20-08-1996
			US US US US AU	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995
			US US US AU CA	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1	02-12-1997 20-08-1996 24-06-1997
			US US US AU CA EP	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996
			US US US AU CA EP JP	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997
			US US US AU CA EP JP WO	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995
			US US US AU CA EP JP WO US	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002
			US US US AU CA EP JP WO US US	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998
			US US US AU CA EP JP WO US AU	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A 5019893 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998 15-03-1994
			US US US AU CA EP JP WO US AU AU	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A 5019893 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998 15-03-1994
			US US US AU CA EP JP WO US AU AU BR	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A 5019893 A 5019993 A 9306920 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998 15-03-1994 12-01-1999
			US US US AU CA EP JP WO US AU BR BR	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A 5019893 A 5019993 A 9306920 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998 15-03-1994 12-01-1999 12-01-1999
			US US US AU CA EP JP WO US AU BR BR CA	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A 5019893 A 5019893 A 9306920 A 9306921 A 2140263 A1	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998 15-03-1994 12-01-1999 03-03-1994
			US US US AU CA EP JP WO US AU BR BR	5607759 A 5693411 A 5547745 A 5641561 A 1921395 A 2181476 A1 0745160 A1 9509226 T 9522655 A1 6340411 B1 5807364 A 5019893 A 5019993 A 9306920 A	02-12-1997 20-08-1996 24-06-1997 04-09-1995 24-08-1995 04-12-1996 16-09-1997 24-08-1995 22-01-2002 15-09-1998 15-03-1994 12-01-1999 12-01-1999

Information on patent family members

International Application No
PCT/US 02/08716

Patent document cited in search report	:	Publication date		Patent family member(s)	Publication date
US 5547541	Α		EP	1219744 A1	03-07-2002
05 5547541	,,		EP	0655970 A1	07-06-1995
			EP	0655971 A1	07-06-1995
			JP	8500270 T	16-01-1996
			JP	8500271 T	16-01-1996
			NZ	255814 A	25-06-1996
			NZ	255815 A	26-03-1996
			US	2002025435 A1	28-02-2002
			WO	9404351 A1	03-03-1994
			WO	9404352 A1	03-03-1994
			US	6071549 A	06-06-2000
			US	6395395 B1	28-05-2002
			US	5611885 A	18-03-1997
			US	5998032 A	07-12-1999
			US	5789326 A	04-08-1998
			US	2001021453 A1	13-09-2001
			US	5609727 A	11-03-1997
			US	5571618 A	05-11-1996
			US	5447977 A	05-09-1995
			US	5614570 A	25-03-1997 
WO 0066821	A	09-11-2000	AU	4365300 A	17-11-2000
## 00000Ex	• •		BR	0010131 A	15-01-2002
			CN	1349570 T	15-05-2002
			EΡ	1177338 A1	06-02-2002
			WO	0066821 A1	09-11-2000

# PATENT COOPERATION TREATY

# **PCT**

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	(Form PCT/ISA/2	of Transmittal of International Search Report 220) as well as, where applicable, item 5 below.					
17037B	ACTION	(Earliest) Priority Date (day/month/year)					
International application No.	International filing date (day/month/year)						
PCT/US 02/08715	21/03/2002 12/09/2001						
Applicant							
KIMBERLY-CLARK WORLDWIDE	INC.						
		- Indiana and the second and the sec					
This International Search Report has been	en prepared by this International Searching Aut	thority and is transmitted to the applicant					
according to Article 18. A copy is being tr	ransmitted to the International Bureau.						
This laternational Court December 1	s of a total of 3 sheets.						
This International Search Report consists    X	s of a total ofsneets.  y a copy of each prior art document cited in this	s report.					
Basis of the report							
With regard to the language, the language in which it was filed, ur	e international search was carried out on the ba nless otherwise indicated under this item.	asis or the international application in the					
the international search (Authority (Rule 23.1(b)).	was carried out on the basis of a translation of	the international application furnished to this					
b. With regard to any nucleotide a	nd/or amino acid sequence disclosed in the i	international application, the international search					
was carried out on the basis of the	he sequence listing : ional application in written form.						
1 🖵	ional application in written form. ternational application in computer readable for	rm.					
<u> </u>	to this Authority in written form.						
· -	to this Authority in computer readble form.						
the statement that the su	ubsequently furnished written sequence listing as filed has been furnished.	does not go beyond the disclosure in the					
		is identical to the written sequence listing has been					
furnished							
2. Certain claims were fo	und unsearchable (See Box I).						
3. Unity of invention is la	cking (see Box II).						
4. With regard to the <b>title</b> ,	with an internal to the company of						
1 2	submitted by the applicant.						
the text has been estab	the text has been established by this Authority to read as follows:						
5. With regard to the abstract,							
the text is approved as	submitted by the applicant.						
the text has been estab	lished, according to Rule 38.2(b), by this Autho the date of mailing of this international search r	ority as it appears in Box III. The applicant may, report, submit comments to this Authority.					
6. The figure of the <b>drawings</b> to be pu	ublished with the abstract is Figure No.						
as suggested by the ap		X None of the figures.					
because the applicant f	ailed to suggest a figure.						
because this figure bett	because this figure better characterizes the invention.						

international Application No PCT/US 02/08715

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 DO4H1/58 DO4H G11B33/14 D04H3/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 DO4H G11B Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° 1 US 5 667 562 A (MIDKIFF DAVID GRANT) χ 16 September 1997 (1997-09-16) column 7, line 45 -column 8, line 28; claims 1-8 1 - 12US 5 721 180 A (PIKE RICHARD DANIEL ET Y AL) 24 February 1998 (1998-02-24) claims 1-20; example 1 1 - 12US 5 858 515 A (CLARK DARRYL FRANKLIN ET Υ AL) 12 January 1999 (1999-01-12) claims 1-20; examples 0-R 1 - 28US 5 817 584 A (PIKE RICHARD DANIEL ET Α AL) 6 October 1998 (1998-10-06) the whole document -/--Patent family members are listed in annex. Further documents are listed in the continuation of box C X Special categories of cited documents: \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the \*A\* document defining the general state of the art which is not considered to be of particular relevance invention \*E\* earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled citation or other special reason (as specified) \*O\* document referring to an oral disclosure, use, exhibition or \*P\* document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 22/07/2002 11 July 2002 Authorized officer

Fax: (+31-70) 340-3016

1

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,

Karlsson, L

International Application No
PCT/US 02/08715

C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	The state of the s
Category °	of the solovant passages	Relevant to claim No.
Α	US 4 850 731 A (YOUNGS ROSS 0) 25 July 1989 (1989-07-25) the whole document	1-28
А	US 6 186 320 B1 (DREW TERRENCE MARTIN) 13 February 2001 (2001-02-13) the whole document	1-28

Information on patent family members

International Application No PCT/US 02/08715

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5667562 A	16-09-1997	AU WO	2724597 A 9739817 A1	12-11-1997 30-10-1997
US 5721180 A	24-02-1998	AU CA EP US WO	1286797 A 2239063 A1 0874677 A1 5873968 A 9723267 A1	17-07-1997 03-07-1997 04-11-1998 23-02-1999 03-07-1997
 US 5858515 A	12-01-1999	AU AU BR CA CN EP PL TR WO RU ZA	700999 B2 1348497 A 9612354 A 2239164 A1 1209177 A 0870081 A1 327332 A1 9801181 T2 9724482 A1 2149933 C1 9610867 A	14-01-1999 28-07-1997 13-07-1999 10-07-1997 24-02-1999 14-10-1998 07-12-1998
US 5817584 A	06-10-1998	AU AU BR CA CN DE EP JP WO	699795 B2 1685097 A 9612266 A 2239789 A1 1209178 A 69620227 D1 0868553 A2 2000502574 T 9723246 A2	17-07-1997 28-02-2001 03-07-1997 ,B 24-02-1999 02-05-2002 07-10-1998 07-03-2000
US 4850731 A	25-07-1989	AT AU CA DE DE EP JP JP WO	100410 T 3698989 A 1327154 A1 68912587 D1 68912587 T2 0416009 A1 7002511 B 4500945 T 8910882 A1	03-03-1994 05-05-1994 13-03-1991 18-01-1995 20-02-1992
US 6186320 B3	13-02-2001	US US	2001000892 A: 2002084200 A:	